

ABSTRACT OF THE DISCLOSURE

The present invention relates to a snapshot system for a data storage system including a host that communicates with a cache memory, source storage, target storage, and metadata, including a source storage for active data, a target storage to store migrated snapshot data, first metadata (e.g., bitmaps and log files with pointers) to indicate when and to locate where the first snapshot data is in the target storage, and second metadata (e.g., bitmaps and log files pointers) to indicate when and to locate where the second snapshot data is in the target storage wherein the first metadata and the second metadata locate the same snapshot data in the target storage. The invention also relates to destaging data so as to maintain data consistency including reading the metadata for all of the snapshots into a host memory, searching the metadata to identify snapshots that require original data to be destaged, destaging the original data to the target storage, and updating the metadata to locate the original data and indicate completion of target destage operation.